



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,298	03/06/2002	Hisao Deo	3064YO/50999	8166

7590 07/28/2003

Crowell & Moring, L.L.P.  
P.O. Box 14300  
Washington, DC 20044-4300

EXAMINER
----------

CAO, ALLEN T

ART UNIT	PAPER NUMBER
----------	--------------

2652

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/091,298

Applicant(s)

DEO, HISAO

Examiner

Allen T Cao

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 is/are allowed.
- 6) ☒ Claim(s) 2-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2652

1. Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "a chassis having a plurality of rollers which support the disk tray rotatably on a back side of the disk tray ..." in claim 2 is vague and indefinite. It is unclear that how is the structural relationship between the chassis, disk tray and rollers because in the specification, applicant only discloses that the rollers are located on the slide tray not the chassis.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Kurosu (US. 5,555,227).

Kurosu discloses a disk tray 3 which accommodates a plurality of disks on a surface thereof; a drive mechanism (45-49) for rotating the disk tray; a "chassis" having a plurality of rollers (83, 84) which "support" the disk tray rotatably on a back side of the disk tray; and a support shaft structure (50 and 4) which urges the disk tray toward the chassis while supporting the disk tray rotatably about an axis of the disk tray relatively to the chassis all as applicant's claim language in claim

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2652

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurosu in view of Liu (US. 5,251,192).

Kurosu does not disclose a spring which expands and contracts in the axial direction of the disk tray, one end of the spring being spaced a predetermined distance from the chassis and positioned there, an opposite end of the spring being pressed against a vicinity of the disk tray axis from the side opposite to the chassis as recited in claim 3.

Liu discloses a disk apparatus having a disk tray 2, a support shaft structure (3 and 23-25) provided with a spring 25 which expands and contracts in the axial direction of the disk tray, one end of the spring being spaced a predetermined distance from the chassis and positioned there, an opposite end of the spring being pressed against a vicinity of the disk tray axis from the side opposite to the chassis.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the support structure of Kurosu with a support structure as set forth, supra as taught by Liu.

The rationale is as follows: One of ordinary skill in the art would have been motivated to replace the support structure of Kurosu with a support structure as set forth, supra as taught by Liu to secure and stable the disks.

Art Unit: 2652

Regarding claims 4-5, Liu discloses that the chassis portion opposed to the vicinity of the disk tray axis is depressed as a recess in a direction away from the disk tray.

Regarding claim 5, Kurosu as modified by Liu do not disclose that the disk tray is formed by molding.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacturing the "disk tray" of Kurosu as modified by Liu by molding as a result of routine engineering optimizing. Applicant has shown no criticality for such as any unexpected results deriving from such. Additionally, it is not found to be persuasive as a process limitation should only be accorded weight to the extent that it affects the structure of the disk loading/unloading since claims are directed to "a disk changer", per se. Furthermore, it should be noted that "[d]etermination of patentability in 'product-by-process' claims is based on product itself, even though such claims are limited and defined by process, and thus product in such claim is unpatentable if it is the same as, or obvious form, product of prior art, even if prior art product was made by a different process", In re Thorpe, et al., 227 USPQ 964 (CAFC 1985). It should also be noted that a "[p]roduct-by process claim, although reciting subject matter of claim in terms of how it is made, is still product claim; it is patentability of product claimed and not recited process steps that must be established, in spite of fact that claim may recite only process limitations", In re Hirao and Sato, 190 USPQ 685 (CCPA 1976).

6. Claim 1 is allowed.

Art Unit: 2652

7. The following is an examiner's statement of reasons for allowance: The prior art of record neither discloses nor suggests a disk changer having the combination limitations of a slide tray; a circular recess; rollers; a disk tray; a tray axial bore; an annular recess; a ring gear; a driving gear. Particularly, the prior art of record neither discloses nor suggests a chuck arm made of resin, the chuck arm having an arm axial bore formed on one end side thereof and into which the support shaft is inserted, an annular recess formed in a lower surface of the chuck arm in a surrounding relation to the arm axial bore, the annular recess being able to confront the annular recess formed in the disk tray, and a through hole formed on an opposite side of the chuck arm and able to confront a central part of each of the disk receptacle portions, the chuck arm being mounted to the support shaft while allowing a spring to be accommodated within a space which is formed by making the annular recesses confront each other, the spring being disposed so that it can expand and contract axially of the support shaft.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ikedo et al (US. 5,084,854).

Art Unit: 2652

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen T Cao whose telephone number is (703) 305-3796. The examiner can normally be reached on Mon - Thurs (7:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T Nguyen can be reached on (703) 305-9687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7201 for regular communications and (703) 305-7201 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.



Allen Cao  
Primary Examiner

AC  
July 23, 2003